UNIVERSITY
OF TWENTE.

PhD position (f/m/d): Pioneering simulations of offshore wind farm turbulence

max. 40 hours per week

Job description
Are you captivated by the intricacies of fluid mechanics, the complexities of turbulence, the power of high-performance computing, and the potential of wind energy? If you're passionate about pioneering research and eager to be part of a dynamic team, we have an exciting opportunity for you. We're seeking an enthusiastic PhD candidate to study flow dynamics in offshore wind farms, developing novel computer simulations. As the scale of wind turbines and farms expands, particularly in offshore settings, they present novel challenges due to the unique atmospheric turbulence phenomena in the marine environment remain largely uncharted.

This PhD project is part of the ERC Consolidator Grant project WINDFLOW, which strives to develop groundbreaking large-eddy simulation strategies for wind farm flows. Your research will illuminate the intricate dynamics between wind and waves, assessing their influence on the efficiency of offshore wind farms. This is a chance to advance knowledge in renewable energy and significantly contribute to improving wind farm efficiency. Join us in advancing the frontier of wind energy fluid mechanics research!

Requirements
We are seeking applications from motivated early-career researchers with a strong background in fluid dynamics, mechanical engineering, computational physics, applied physics, mathematics, geophysics, or related subject areas. Proficiency in programming languages such as Fortran, C/C++, MATLAB, or Python is advantageous. Candidates should thrive in an international environment and actively contribute to team research efforts. Excellent communication skills and a willingness to share knowledge at conferences and meetings are highly valued. Proficiency in spoken and written English is essential. We encourage a high degree of responsibility and independence while collaborating with colleagues.

Conditions of employment
This position is integral to the ERC WINDFLOW project and offers integration into a dynamic research group with peers exploring similar themes.

- A full-time position for four years, with a qualifier in the first year.
- Salary and associated conditions are in accordance with the collective labor agreement for Dutch universities (CAO-NU).
- Access to novel research facilities, including top-tier supercomputers.
- Professional and personal development program within Graduate School Twente.
- Excellent mentorship and a stimulating international research environment.
- The monthly salary is € 2.872 in the first year, increasing yearly to € 3.670 in the fourth year.
- There are excellent benefits, including a holiday allowance of 8% of the gross annual salary, an end-of-year bonus of 8.3%, and a solid pension scheme.
- A minimum of 29 holidays in case of full-time employment.
- Free access to sports facilities on campus.

Department
This research is conducted within the Physics of Fluids group at the University of Twente in the Netherlands.
Our work spans various fluid mechanical challenges, employing experiments, simulations, and theoretical approaches.
The group is affiliated with the Max Planck Center for Complex Fluid Dynamics and the J.M. Burgerscentrum for Fluid Mechanics.
For further insights, visit us at Richard Stevens and [POF](http://pof.tnw.utwente.n

Additional information
To apply, please submit your application via the button below, including:

- A cover letter highlighting your specific interests, qualifications, and motivation for this position.
- A detailed CV (resume).
- An academic transcript of BSc and MSc education, including grades.
- Contact information of two academic references who are willing to provide a recommendation letter at our request.

We are committed to fostering diversity and inclusion at our university and do not discriminate based on race, religion, nationality, gender, sexual orientation, age, marital status, veteran status, or disability. We provide reasonable accommodations for individuals with disabilities during the application process, interviews, and employment. Please contact us to request accommodation.